

## WHAT IS CLAIMED IS:

1. A disposable absorbent article for personal wear, said disposable absorbent article comprising:

an inner layer adapted for contiguity with the wearer's skin, at least a portion of said inner layer being liquid permeable;

an outer layer in opposed relation with the inner layer;

an absorbent body disposed between the inner layer and the outer layer of said article for absorbing liquid body waste; and

a pair of containment flaps secured to the inner layer of said article in spaced relation with each other, each flap having a base secured to the inner layer of said article and a distal end, at least a portion of the distal end being movable relative to said base to a position in which said distal end is spaced from the inner layer of said article, said containment flaps each comprising:

a first layer extending from the base of the flap to the distal end of said flap, said flap first layer having a lateral surface and a medial surface; and

a liquid permeable second layer in opposed relation with the medial surface of the flap first layer, said flap second layer being free from fixed engagement with at least a portion of the medial surface of said flap first layer to define a surge chamber therebetween for receiving liquid body waste, said liquid permeable portion of the inner layer of said article being interposed between the surge chamber and the absorbent body of said article.

2. A disposable absorbent article as set forth in claim 1 wherein the flap second layer has a width greater than a width of said portion of the medial surface of the flap first layer.

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3. A disposable absorbent article as set forth in claim 2 wherein said portion of the medial surface of the flap first layer extends substantially from the base of the flap to the distal end of the flap.

4. A disposable absorbent article as set forth in claim 2 wherein the flap second layer is secured to the medial surface of the flap first layer at a first seam therebetween generally at the distal end of the flap.

5. A disposable absorbent article as set forth in claim 4 wherein the flap second layer is further secured to the medial surface of the flap first layer at a second seam spaced from said first seam, said portion of the medial surface of the flap first layer extending between the first seam and the second seam.

6. A disposable absorbent article as set forth in claim 5 wherein said second seam is located generally at the base of the flap.

7. A disposable absorbent article as set forth in claim 6 wherein the flap second layer is tucked between the medial surface of the flap first layer and the inner layer of said article generally at said second seam, said flap second layer being secured to the inner layer of said article thereby securing the base of the flap to the inner layer of said article.

8. A disposable absorbent article as set forth in claim 1 wherein said portion of the medial surface of the flap first layer extends from the base of the flap generally to the distal end of said flap, said flap second layer extending generally from the distal end of said flap to the inner layer of said article in spaced relation with said portion of the medial surface of the flap first layer to define the surge chamber therebetween, the inner layer of said article further defining said surge chamber.

10. A disposable absorbent article as set forth in claim 8 wherein the surge chamber has a generally triangular cross-section.

12. A disposable absorbent article as set forth in claim 11 wherein the flap second layer is secured to the flap first layer generally at the distal end of the flap to define said seam, said flap second layer being further secured to the inner layer of said article in spaced relation with said flap first layer.

13. A disposable absorbent article as set forth in claim 11 wherein the surge chamber has a generally triangular cross-section.

14. A disposable absorbent article as set forth in claim 1 wherein the flap second layer further extends in opposed relation with the lateral surface of the flap first layer.

15. A disposable absorbent article as set forth in claim 14 wherein the flap second layer overlays substantially the entire lateral surface of the flap first layer.

16. A disposable absorbent article as set forth in claim 1 wherein the flap second layer is constructed of a non-woven material.

17. A disposable absorbent article as set forth in claim 16 wherein the flap second layer is constructed of a spunbond polypropylene non-woven web.

18. A disposable absorbent article as set forth in claim 1 wherein the flap second layer is constructed of a film, at least a portion of said film having apertures formed therein.

19. A disposable absorbent article as set forth in claim 1 wherein the flap first layer is substantially liquid impermeable.

20. A disposable absorbent article for personal wear, said disposable absorbent article comprising:

an inner layer adapted for contiguity with the wearer's skin, at least a portion of said inner layer being liquid permeable;

an outer layer in opposed relation with the inner layer of said article;

an absorbent body disposed between the inner layer and the outer layer of said article for absorbing liquid body waste; and

a pair of containment flaps secured to the inner layer of said article in spaced relation with each other, each flap having a base secured to the inner layer of said article and a distal end, at least a portion of the distal end being movable relative to said base to a position in which the flap is spaced from the inner layer of said article, said containment flaps each comprising:

15 a first layer extending from the base of the flap to the distal end of said flap, said flap first layer having a lateral surface and a medial surface; and

20 a liquid permeable second layer at least partially surrounding the lateral and medial surfaces of the flap first layer, said flap second layer being free from fixed engagement with at least a portion of the medial surface of said flap first layer to define a surge chamber therebetween for receiving liquid body waste.

21. A disposable absorbent article as set forth in claim 20 wherein the flap first layer is formed separate from the inner layer of said article.

22. A disposable absorbent article as set forth in claim 20 wherein the flap second layer is formed separate from the inner layer of said article.

23. A disposable absorbent article as set forth in claim 20 wherein the flap second layer inhibits contact of the flap first layer with the wearer's skin.

24. A disposable absorbent article as set forth in claim 23 wherein the flap second layer overlays substantially the entire lateral surface of the flap first layer.

25. A disposable absorbent article as set forth in claim 20 wherein the flap first layer is substantially liquid impermeable.

26. Toilet training pants comprising:  
an anterior side, a posterior side and a crotch region disposed longitudinally therebetween, said anterior side, posterior side and crotch region being integrally formed and configured to define a central waist

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- 5 opening and a pair of leg openings of the pants, the crotch region extending generally laterally between said leg openings;
- an inner layer extending from the anterior side through the crotch region to the posterior side and being adapted for contiguity with the wearer's skin, at least a portion of said inner layer being liquid permeable;
- 10 an outer layer extending from the anterior side through the crotch region to the posterior side in opposed relation with the inner layer;
- an absorbent body disposed between the inner layer and the outer layer of said pants for absorbing liquid body waste; and
- 15 a pair of containment flaps secured to the inner layer of said pants in laterally spaced relation with each other between the leg openings and extending generally longitudinally from the anterior side through the crotch region to the posterior side of the pants, each flap having a base secured to the inner layer of said article and a distal end, at least a portion of the distal end being movable relative to said base to a position in which the flap is
- 20 spaced from the inner layer of said pants, said containment flaps each comprising:
- a first layer extending from the base of the flap to the distal end of said flap, said flap first layer having a lateral surface and a medial surface; and
- 25 a generally liquid permeable second layer in opposed relation with the medial surface of the flap first layer, said flap second layer being free from fixed engagement with at least a portion of the medial surface of said flap first layer to define a surge chamber therebetween for receiving liquid body waste, said liquid permeable portion of the
- 30 inner layer of said pants being interposed between the surge chamber and the absorbent body of said pants.

27. Toilet training pants as set forth in claim 26 wherein the flap first layer is substantially liquid impermeable.

28. A disposable absorbent article for personal wear, said disposable absorbent article comprising:

a liner adapted for contiguity with the wearer's skin, at least a portion of said liner being liquid permeable;

an outer cover in opposed relation with the liner;

an absorbent body disposed between the liner and outer cover for absorbing liquid body waste, the absorbent body being secured to the liner and being further secured to the outer cover to generally secure the absorbent body against movement relative to the liner and outer cover, the liner being secured to the outer cover about a periphery of the absorbent body to inhibit liquid body waste absorbed by the absorbent body against leaking out of the article between the liner and the outer cover; and

a pair of containment flaps secured to the liner in spaced relation with each other, each of said flaps comprising:

a first layer extending from a base of the flap adjacent the liner to a distal end of the flap, at least a portion of the distal end of the flap being spaced from the liner, said flap first layer having a lateral surface and a medial surface;

a liquid permeable second layer overlaying the lateral surface of the flap first layer from the base of the flap to the distal end of the flap and being secured to said lateral surface, the flap second layer extending in opposed relation with the medial surface of the flap first layer from the distal end of the flap to the liner, the flap second layer being secured to the medial surface of the flap first layer at a first seam adjacent the distal end of the flap and being further secured to the liner in laterally inward spaced relation with the base of the flap so that the liner, the flap first layer extending between the seam and the base, and the flap second layer extending between the seam and the liner together form a surge chamber for receiving liquid body waste; and

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an elastic member secured between the flap first layer and the flap second layer generally at the distal end of the flap to bias the distal end of the flap toward a position in which the flap extends from the liner.

29. A disposable absorbent article as set forth in claim 28 wherein the flap first layer is substantially liquid impermeable.

30. A method of manufacturing toilet training pants comprising:  
securing an absorbent body between a liner and an outer cover and securing the liner to the outer cover about a periphery of the absorbent body, the liner being adapted for contiguity with the wearer's skin and at least in part being liquid permeable, said liner and outer cover together defining an anterior side, a crotch region and a posterior side of the training pants;

securing front and rear side panels respectively to the anterior and posterior sides of the training pants to extend laterally outward from the liner and outer cover, and securing adjacent front and rear side panels together so that the side panels, together with the anterior side, crotch region and posterior side of the pants form a central waist opening and a pair of leg openings of the training pants, the crotch region being disposed between the leg openings;

securing a pair of containment flaps to the liner in spaced relation with each other, each of said flaps being formed by:

securing a first layer of the flap to the liner to define a base of the flap;

overlaying a liquid permeable second layer over a lateral surface of the flap first layer from the base of the flap to a distal end thereof;

securing said flap second layer to the lateral surface of the flap first layer;



25 wrapping the flap second layer around the distal end of the flap;  
overlaying the flap second layer over a medial surface of the  
flap first layer from the distal end of the flap to the liner;

30 securing the flap second layer to the liner in laterally inward  
spaced relation with the base of the flap so that the liner, the medial  
surface of the flap first layer extending between the distal end of the  
flap and the base, and the flap second layer extending between the  
distal end of the flap and the liner together form a surge chamber for  
receiving liquid body waste; and

securing an elastic member between the flap first layer and the  
flap second layer to bias the distal end of the flap to a position in which  
the distal end is spaced from the liner.

31. A method as set forth in claim 30 further comprising the step of  
securing the flap second layer to the medial surface of the flap first layer at a  
first seam spaced from the base of the flap, the step of securing the flap  
second layer to the liner comprising securing the flap second layer to the liner  
5 in laterally inward spaced relation with the base of the flap so that the liner,  
the medial surface of the flap first layer extending between the seam and the  
base, and the flap second layer extending between the seam and the liner  
together form a surge chamber for receiving liquid body waste.

32. A method as set forth in claim 30 wherein the step of securing an  
elastic member between the flap first layer and the flap second layer  
comprises securing an elastic member between the flap first layer and the  
flap second layer generally at the distal end of the flap to bias the distal end  
5 of the flap so that the flap extends from the liner in space relation thereto.